Arthritis in Indiana

Cate Jones, PhD
Indiana Arthritis Initiative

Linda Stemnock, BSPH
ISDH Epidemiology Resource Center

Background

There is no one disease known as "arthritis." The term covers more than 100 related diseases and conditions including osteoarthritis, rheumatoid arthritis, juvenile rheumatoid arthritis, fibromyalgia, scleroderma, lupus, bursitis, and gout. Though their causes vary, these diseases may involve one or more joints or the ligaments, muscles, and tendons surrounding a joint. Some forms of arthritis are systemic and may affect internal organs.

The painful symptoms and diminished function associated with arthritis contribute greatly to reduced quality of life for individuals and their families. In fact, arthritis is the leading cause of disability[1] among Americans. In recognition of this, the Centers for Disease Control and Prevention (CDC) began funding states in 1999 to develop state programs to encourage early diagnosis, proper treatment, and the use of self-management strategies by people with arthritis. The Indiana State Department of Health (ISDH), Chronic Disease Program was awarded funding.

The Indiana Arthritis Initiative (IAI) is the state's arthritis program. The strategic action plan developed by the IAI can be viewed at http://www.in.gov/isdh/dataandstats/arthritis/d25499.pdf.

Data

Results in this report are based on Indiana's 2001 Behavioral Risk Factor Surveillance System (BRFSS) telephone survey[2]. Respondents were considered to have **physician-diagnosed arthritis** if they answered "yes" when asked, "Have you ever been told by a doctor that you have arthritis?" Respondents were considered to have **chronic joint symptoms (CJS)** if they answered "yes" to two questions: "During the last 12 months, have you had pain, aching, stiffness, or swelling in or around a joint?" and "Were these symptoms present on most days for at least one month?" Respondents reporting either physician-diagnosed arthritis or chronic joint symptoms were classified as **having arthritis/CJS**.

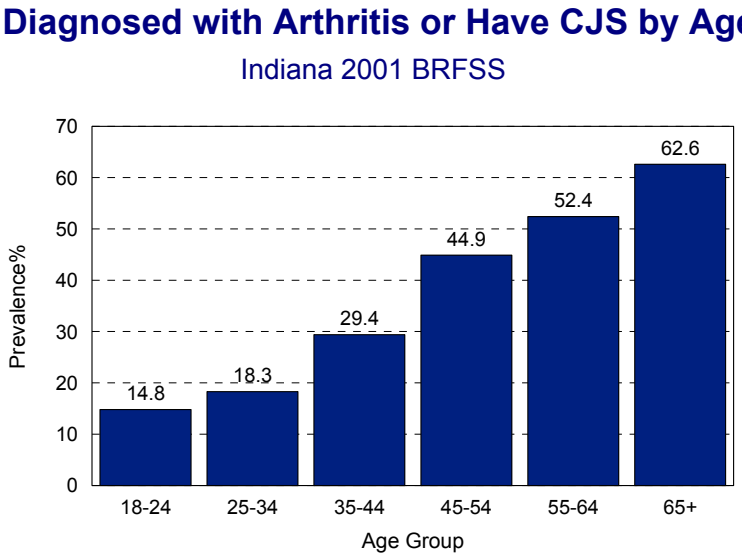
One in three adult state residents (37%) reported arthritis/CJS. Subgroups with higher rates included people in increasing age groups, women, people who were obese, and people with less than a high school education or a household income less than $15,000. The full report on the burden of arthritis in Indiana is available at http://www.in.gov/isdh/dataandstats/arthritis/index.htm.

Some highlights:

- **Age**

The likelihood of developing arthritis increased with age. Almost 15% of 18-24 year old respondents reported arthritis/CJS compared to 62.6% of respondents aged 65 or older (see Figure 1).

Figure 1.



However, it is a myth that arthritis only affects "the elderly". Seventy percent of Hoosiers with arthritis/CJS were 18-64 years old.

- **Gender**

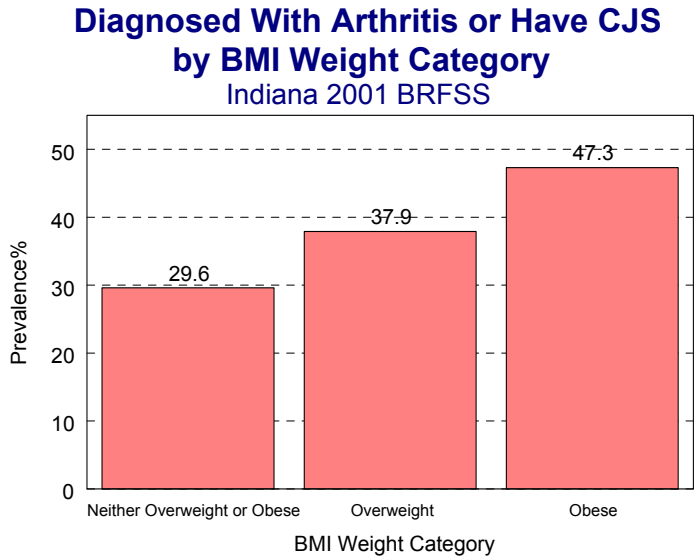
Women were more likely to have arthritis/CJS than men, 41.3% vs. 32.3%, respectively. Rates for the sexes were comparable for adults under 45 years old. However, rates for women exceeded those of men in higher age groups. For adults aged 45-64, 54.7% were women, and for those 65 and older, 66.1% were women.

- **Body Weight**

Indiana ranked as the sixth most obese state in 2001 with 24.5% of Hoosier respondents considered obese, that is, with a body mass index of 30 or greater[3]. The excess weight Hoosiers carry increases stress on weight-bearing joints and creates a greater risk for arthritis. Even modest weight loss can reduce the risk of developing knee osteoarthritis.

Nearly half (47.3%) of respondents considered obese reported arthritis/CJS compared to 29.6% of those whose weight was classified as normal or underweight (see Figure 2). Individuals who were obese were 1.9 times as likely to report activity limitations from chronic joint symptoms as were those whose weight was classified as normal or underweight.

Figure 2.

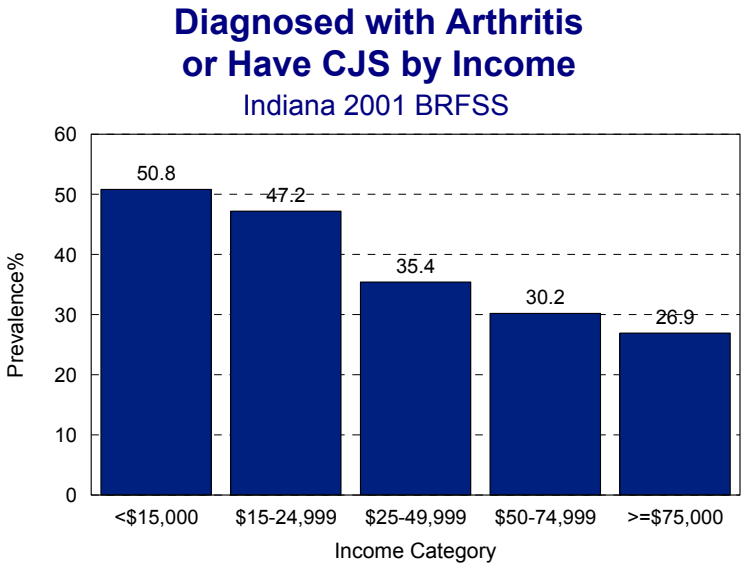


Source: Indiana 2001 BRFSS

- **Socioeconomic Status**

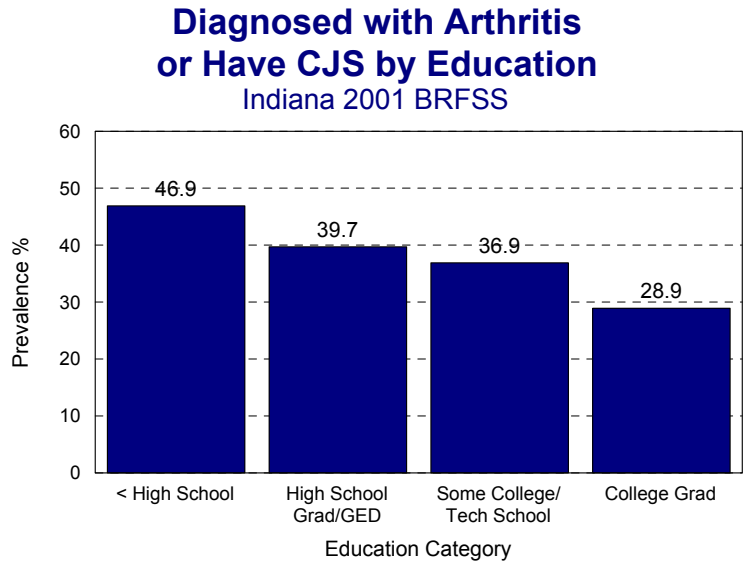
Socioeconomic conditions may play a role in who gets arthritis – as they do for other chronic diseases. Along income and education categories, both of which are markers of socioeconomic status, arthritis rates decreased as income or education increased (see Figures 3 and 4).

Figure 3.



Source: 2001 Indiana BRFSS

Figure 4.



Source: 2001 Indiana BRFSS

Lower income also corresponded to limitations from chronic joint symptoms. Forty percent of those with income lower than $15,000 reported limitations, compared to 26.3% of those with incomes from $25,000 to less than $50,000.

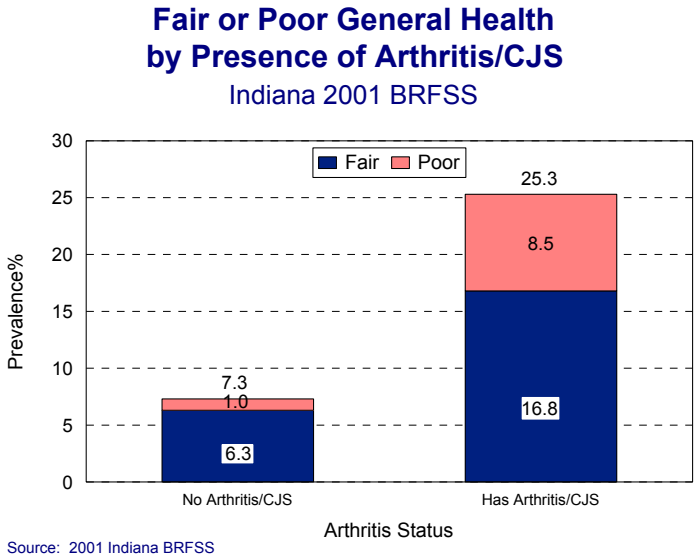
- **Race/ethnicity**

Whites (non-Hispanic/Latino) and African Americans (non-Hispanic/Latino) report similar rates for arthritis/CJS, 37.5% and 34.0%, respectively. Hispanics/Latinos reported a somewhat lower rate of 29.2%. The younger age of the Hispanic/Latino population may contribute to their lower rate.

- **Health status**

A quarter (25.3%) of all respondents with arthritis/CJS characterized their health as fair or poor compared to only 7.3% of people without arthritis/CJS (see Figure 5).

Figure 5.



Source: 2001 Indiana BRFSS

- **Costs**

In 2000, Indiana residents had 17,869 hospitalizations with a primary discharge diagnosis of arthritis, totaling more than $291 million dollars. The majority of the hospitalizations (73.5%) were due to osteoarthritis[4]. Since most people with arthritis do not require hospital care, hospitalization costs reflect only a part of the entire burden.

As the state's population continues to age, the cost of arthritis will increase.

IAI activities

Too often, people's reaction to aching or stiffness in their joints is to use them less. However, studies have shown that people with arthritis can maintain or improve joint function and reduce pain by appropriate physical activity. Slow, gentle **range-of-motion exercises** lubricate joints and reduce stiffness. **Strengthening exercises** stabilize and protect joints by strengthening the muscles that surround them. **Low-impact aerobic activities**, like walking, bicycling, and swimming, increase circulation to the joints and promote general well-being. (Individuals should consult with a health care provider for advice appropriate to their medical needs.)

A second important IAI message is that losing excess body weight may reduce arthritis symptoms and may prevent or delay the onset of osteoarthritis in the knee. Even modest weight loss can help.

To increase awareness about the prevalence of arthritis and the role increased movement and activity plays in reaching optimum function, IAI will increase analysis and publication of state arthritis data; increase availability of educational material to programs and events serving people with or at risk for arthritis; increase availability of Arthritis Foundation educational and physical activity programs; develop a management tool for patients; increase awareness of arthritis prevalence among healthcare providers and legislators; and better integrate arthritis into relevant existing ISDH programs.

References

1) CDC. Prevalence of disability and associated health conditions among adults – United States, 1999. MMWR 2001;50(08):120-5. Please note that that the definition of disability in this analysis was broader than that used in an early 1994 report. Disability was defined as self-reported or proxy-reported difficulty with one or more eight measures: 1) difficulty with one or more specified functional abilities (able to see words and letters in newspaper print, hear normal conversations, have speech understood by others, lift and carry up to 10 lbs, climb a flight of stairs without resting, and walk three city blocks); 2) difficulties with one or more activities of daily living (get around inside the home, get in and out of bed or a chair, bath, dress, and use the toilet); 3) difficulty with one or more instrumental activities of daily living (get around outside the home, keep track of money and bills, prepare meals, do light housework, use the phone); 4) reporting one or more selected impairments (learning disabilities, mental retardation, other developmental disabilities, Alzheimer disease, senility, dementia, and other mental or emotional conditions); 5) use of assistive aids (e.g., wheelchair, cane, crutches, or walker) for 6 months or longer; 6) limitation in the ability to work around the house; 7) limitation in the ability to work at a job or business (data for people 16-67 years); and 8) receiving federal benefits on the basis of an inability to work.
2) The BRFSS is administered annually by all 50 states with funding from the CDC. State residents 18 years and older are called at random and asked questions about personal behaviors that increase risk for one or more of the ten leading causes of death and disability.
3) 2001 BRFSS Indiana Summary Prevalence Report, CDC. Obesity was determined by self-reported weight and height and the Body Mass Index (BMI) classification system. A BMI of 25 to 29.9 is considered overweight and a BMI of 30 and greater is considered obese. To view the BMI table, visit http://www.niddk.nih.gov/health/nutrit/pubs/statobes.htm#table.
4) 2000 Hospital Discharge Data. Source: Indiana State Department of Health, Epidemiology Resource Center. ICD-9 codes used to compute arthritis data were those defined by the National Arthritis Data Workgroup (NADW) which is composed of researchers from CDC, AF, and the American College of Rheumatology (ACR). For a list of the ICD-9 codes, see CDC, Arthritis prevalence and activity limitations, MMWR, June 24, 1994; 43(24):433-438.